



Class Methods

- In addition to properties, a class may also contain sub and function procedures
- *Methods* are procedures defined in a class
- Typically operate on data stored in the class
- The following slide shows a Clear method for the Student class
 - Method called with **freshman.Clear()**
 - Method clears member data in the Student class object referenced by *freshman*



Clear Method for Student Class

```
Public Class Student
    ' Member variables
    Private strLastName As String      ' Holds last name
    Private strFirstName As String    ' Holds first name
    Private strId As String           ' Holds ID number
    Private sngTestAverage As Single  ' Holds test avg
    (...Property procedures omitted...)

    ' Clear method
    Public Sub Clear()
        strFirstName = String.Empty
        strLastName = String.Empty
        strId = String.Empty
        sngTestAverage = 0.0
    End Sub
End Class
```

Constructors

- A *constructor* is a method called automatically when an instance of the class is created
- Think of constructors as initialization routines
- Useful for initializing member variables or performing other startup operations
- To create a constructor, simply create a Sub procedure named **New** within the class
- Next slide shows a Student class constructor
 - The statement `freshman = New Student ()`
 - Creates an instance of the Student class
 - Executes constructor to initialize properties of the Student object referenced by *freshman*





Constructor Example

```
Public Class Student
    ' Member variables
    Private strLastName As String      ' Holds last name
    Private strFirstName As String    ' Holds first name
    Private strId As String           ' Holds ID number
    Private sngTestAverage As Single  ' Holds test avg

    ' Constructor
    Public Sub New()
        strFirstName = "(unknown)"
        strLastName = "(unknown)"
        strId = "(unknown)"
        testAvg = 0.0
    End Sub
End Class
```

(The rest of this class is omitted.)

End Class

Create a Class

- Tutorial 12-1 demonstrates code needed to set up for the Student class

